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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 04 1997

REPLY TO THE ATTENTION OF:

Stuart Breslow
Millennium Inorganic Chemicals, Inc.
200 International Circle
Suite 5000
Hunt Valley, Maryland 21030

RE: Fields Brook Superfund Site
Ashtabula, Ohio

Dear Sir or Madam:

Enclosed is a Unilateral Administrative Order (Order) issued by the United States Environmental Protection Agency (EPA) under Section 106 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986 (CERCLA), 42 U.S.C. §9601 et seq.

Please note that the Order will be effective on February 2, 1998 and provides an opportunity for a conference prior to that date if requested. Further, EPA plans on converting this Order into an RD/RA Consent Decree provided that a Consent Decree can be negotiated between the parties.

If you have any questions regarding this Order, feel free to contact Michael Berman, Assistant Regional Counsel, at (312) 886-6837, Peter Felitti, Assistant Regional Counsel, at (312) 886-5114 or Terese Van Donsel, Remedial Project Manager, at (312) 353-6564.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Wm. E. Muno".

William E. Muno
Director, Superfund Division

Enclosure

cc: State Agency Superfund Coordinator

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 5

In The Matter Of:)

Fields Brook Site, Operable Unit # 2)

Respondent)

Millennium Inorganic Chemicals, Inc.)

) U.S. EPA

) Docket No. _____

Proceeding Under Section 106(a) of the)
Comprehensive Environmental Response,)
Compensation, and Liability Act of 1980,)
as amended (42 U.S.C. § 9606(a)))

**ADMINISTRATIVE ORDER
FOR REMEDIAL DESIGN AND REMEDIAL ACTION**

I. INTRODUCTION AND JURISDICTION

1. This Order directs the Respondent to perform a remedial design for the remedy described in the September 29, 1997 Record of Decision ("1997 ROD") for Operable Unit No. 2 at the Fields Brook Site ("Site") for the Millennium source area. This Order further requires the Respondent to implement the design for the 1997 ROD for this source area by performing the selected remedial action. This Order is issued to the Respondent by the United States Environmental Protection Agency ("U.S. EPA") under the authority vested in the President of the United States by § 106(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended ("CERCLA"), 42 U.S.C. § 9606(a). This authority was delegated to the

Administrator of U.S. EPA on January 23, 1987, by Executive Order 12580 (52 Fed. Reg. 2926), and was further delegated to the Regional Administrator on September 13, 1987 by U.S. EPA Delegation No. 14-14 and 14-14A, and to the Director, Superfund Division, Region 5, by delegation 14-14B.

II. PARTIES BOUND

2. This Order shall apply to and be binding upon the Respondent and its successors and assigns. No change in the ownership, corporate status, or other control of the Respondent shall alter the Respondent's responsibilities under this Order.

3. The Respondent shall provide a copy of this Order to any prospective owners or successors before a controlling interest in Respondent's assets, property rights, or stock are transferred to the prospective owner or successor. The Respondent shall provide a copy of this Order to each contractor, subcontractor, laboratory, or consultant retained to perform any work under this Order, within five (5) days after the effective date of this Order or on the date such services are retained, whichever is later. The Respondent shall also provide a copy of this Order to any person acting on behalf of the Respondent with respect to the Site or the work and shall ensure that all contracts and subcontracts entered into hereunder require performance under the contract to be in conformity with the terms

and work required by this Order. With regard to the activities undertaken pursuant to this Order, each contractor and subcontractor shall be deemed to be related by contract to the Respondent within the meaning of § 107(b)(3) of CERCLA, 42 U.S.C. § 9607(b)(3). Notwithstanding the terms of any contract, the Respondent is responsible for compliance with this Order and for ensuring that its contractors, subcontractors and agents perform all work in accordance with this Order.

4. Not later than thirty (30) days prior to any transfer of any interest in any real property included within the Site, the Respondent shall submit a true and correct copy of the transfer documents to U.S. EPA, and shall identify the transferee(s) by name, principal business address and effective date of the transfer.

5. The Respondent does not admit, accept, concede, or acknowledge the determinations, allegations, findings of fact, and conclusions of law made by U.S. EPA in this Order. Furthermore, the Respondent does not admit any fault or liability under CERCLA or any other statutory or common law and any responsibility for response costs or damages thereunder.

III. DEFINITIONS

6. Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations

promulgated under CERCLA shall have the meaning assigned to them in the statute or its implementing regulations. Whenever terms listed below are used in this Order or in the documents attached to this Order or incorporated by reference into this Order, the following definitions shall apply:

- a. "Brook" shall mean the waterway known as Fields Brook.
- b. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.
- c. "Day" shall mean a calendar day unless expressly stated to be a working day. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or federal holiday, the period shall run until the end of the next working day.
- d. "Millennium facility" shall mean the property located in the south-central portion of the industrialized area near Fields Brook where State Road forms the western boundary and Middle Road forms the southern boundary while Detrex Corporation is located to the north and Vygen Corporation to the east. These areas are depicted in Attachment 3.
- e. "National Contingency Plan" or "NCP" shall mean the National Contingency Plan promulgated pursuant to § 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.

f. "OEPA" shall mean the Ohio Environmental Protection Agency.

g. "Operable Unit 2" or "OU2" shall mean the cleanup of source areas that present a potential to recontaminate the Fields Brook and its tributaries as set forth in the 1997 ROD.

h. "Paragraph" shall mean a portion of this Order identified by an Arabic numeral.

i. "Performance Standards" shall mean those cleanup standards, standards of control, and other substantive requirements, criteria or limitations, identified in the 1997 ROD and Statement of Work, that the remedial action and work required by this Order must attain and maintain.

j. "1997 Record of Decision" or "1997 ROD" shall mean the U.S. EPA Record of Decision relating to Operable Unit 2 (the Source Control area of Fields Brook) at the Site, signed on September 29, 1997 by the Director of the Superfund Division, and all attachments thereto, which is attached hereto and made a part hereof as Attachment 1.

k. "Response Costs" shall mean all costs, including direct costs, indirect costs, and interest incurred by the United States pursuant to Section X (Endangerment and Emergency Response), Section XVI (Access), and Section XIX (Reimbursement of Costs) of this Order.

l. "Respondent" shall mean Millennium.

m. "Section" shall mean a portion of this Order identified by a Roman numeral and includes one or more paragraphs.

n. "Section 106 Administrative Record" shall mean the Administrative Record which includes all documents considered or relied upon by U.S. EPA in preparation of this Order. The Section 106 Administrative Record Index is a listing of all documents included in the Section 106 Administrative Record, and is attached hereto as Attachment 2.

o. "Site" shall mean the Fields Brook Superfund site located in northeast Ohio, in Ashtabula County, approximately 55 miles east of Cleveland, Ohio. The Brook drains a six square-mile watershed and consists of Fields Brook, its tributaries, and any surrounding areas which contribute, potentially may contribute, or have contributed to the contamination of the brook and its tributaries.

p. "Source area" or "Millennium source area" shall mean those locations on the Millennium facility that have or have the potential to recontaminate the brook. These areas are depicted on Attachment 3. *correct map on attach 3 outside the FSCA.*

q. "State" shall mean the State of Ohio.

r. "Statement of Work" or "SOW" shall mean the statement of work for implementation of the remedial design, remedial action, and operation and maintenance at the source area for the 1997 ROD, as set forth in Attachment 4 to this Order. The Statement of Work is incorporated into this Order and is an enforceable part of this Order.

s. "Work" shall mean all activities the Respondent is required to perform under this Order and all attachments hereto, including, but not limited to, remedial design, remedial action and operation and maintenance.

IV. DETERMINATIONS

7. The Site is located in northeast Ohio, in Ashtabula County, approximately 55 miles east of Cleveland, Ohio. The Site consists of the waterway commonly referred to as Fields Brook, its tributaries, watershed, floodplain, wetlands and any surrounding areas which contribute, potentially may contribute or have contributed to contamination of the Brook or its tributaries.

8. The Brook drains a six square-mile watershed including an industrial area. The industrial area of Ashtabula is concentrated around Fields Brook and is comprised of several chemical industries and waste disposal sites. Manufacturing has occurred since the early 1940's in this area. Activities ranging from metal-fabrication to production of complex chemical products occurred on approximately 18 separate industrial properties, and the decades of industrial activity along Fields Brook and its tributaries resulted in the release of chemical contamination to the Fields Brook watershed, particularly the sediments of Fields Brook, the floodplain/wetlands soils and sediments, and the soils surrounding the industries. Access to the Brook is unrestricted.

9. The eastern portion of the Brook watershed drains Ashtabula Township and the western portion drains the eastern portion of the city of Ashtabula. The main channel is 3.9 miles in length and begins at Cook Road, just south of the Penn Central Railroad tracks. From this point, the Brook flows northwest to Middle Road, then west to its confluence with the Ashtabula River. From Cook Road downstream to State Route 11, the Brook flows through an industrialized area. Downstream of State Route 11 to near its confluence with the Ashtabula River, the Brook flows through undeveloped and residential areas in the City of Ashtabula. Fields Brook discharges to the Ashtabula River approximately 8,000 feet upstream from Lake Erie. The City of Ashtabula has a population of about 23,000.

10. The Brook is considered a navigable body of water which varies greatly in width and depth. Some of the areas surrounding the Brook are thickly covered with vegetation.

11. The Respondent is the owner of a source area that has or has the potential to recontaminate the Brook by discharging one or more hazardous substances on the source area to the Brook through surface runoff and/or groundwater.

12. The Site is a multi-source site and involves multiple media, including soil, sediment, groundwater and surface water.

13. The Site was placed on the National Priorities List (NPL) for hazardous waste sites on September 8, 1983.

14. The U.S. EPA divided the Site into four areas of concern, three of which have been designated as "operable units"

associated with the Fields Brook Superfund site. The Sediment Operable Unit, Operable Unit 1 (OU 1), involves the cleanup of contaminated sediment in the Brook and its tributaries. The Source Control Operable Unit, Operable Unit 2 (OU 2), involves the location and cleanup of sources or potential sources of contamination to the Brook to prevent recontamination of the Brook. The floodplain/wetlands areas of the Brook are Operable Unit 4 (OU 4) and involve the cleanup of contaminated soils and sediments in the floodplain/wetlands area of the Brook which are located within the 100-year floodplain area surrounding the Brook and outside of the channel and sideslope areas of the Brook. Operable Unit No. 2 is the subject of this Order.

15. Beginning in 1983, in response to continued releases and threatened releases posed by the Site, U.S. EPA commenced work on a Remedial Investigation/Feasibility Study ("RI/FS") at the Site. Between April 1983 and July 1986, the focus of the RI/FS was OU1. The 1986 RI/FS included a baseline human health risk assessment which demonstrated human health risks not only for OU1, but also for OU4.

16. The RI report was published in March 1985 and indicated that extensive environmental contamination could be attributed to the waste handling practices within the Brook watershed.

17. Human exposure to hazardous substances from the Site would be via exposure to contaminated sediments, exposure to contaminated surface water and consumption of fish from the Brook.

18. Based on U.S. EPA's investigations, hazardous substances, as defined in Section 101(14) of CERCLA, 42 U.S.C. §9601(14) are located at the Site. Sediments of the brook and the Ashtabula River were found to be contaminated with polychlorinated biphenyls ("PCBs"), chlorinated benzene compounds, chlorinated solvents, hexachlorobutadiene, polyaromatic hydrocarbons (PAHs), arsenic, and other hazardous substances.

19. Hazardous substances found in the sediment of the Brook and its tributaries include 1,1,2,2,-tetrachloroethane, tetrachloroethene, PCBs, hexachlorobenzene, and hexachlorobutadiene. The excess lifetime cancer risk based on sediment ingestion of such hazardous substances was calculated to be as high as 1×10^{-2} . Estimated daily intakes for cadmium, thallium, silver and mercury were also calculated. These approached or exceeded the then-published Acceptable Intake-Chronic (AIC) throughout the Brook and its tributaries due to sediment ingestion. Volatile organic compounds produce excess lifetime cancer risks as high as 1×10^{-4} calculated due to dermal adsorption through wading in the Brook and its tributaries.

20. An Exposure Assessment done in connection with the FS indicated that direct contact with and ingestion of contaminated sediments within the Brook posed the greatest risk to public health. On most reaches of the Brook and its tributaries, excess lifetime cancer risks greater than the 1×10^{-6} level could occur due to sediment ingestion. The excess lifetime cancer risk for

residents near the Detrex Tributary was estimated to be 5×10^{-2} for maximum detected concentrations and 2×10^{-2} for average detected concentrations. The primary chemicals contributing to this risk are 1,1,2,2,-tetrachloroethane, tetrachloroethane, PCBs, hexachlorobenzene and hexachlorobutadiene. Residents and casual visitors can also be exposed to volatile chemicals in surface water by wading in the brook and its tributaries.

21. Analysis of tissue from fish caught in the Brook and the Ashtabula River indicates the presence of 1,1,2,2-tetrachloroethane, hexachlorobenzene and PCBs. The estimated excess cancer risk from the ingestion of contaminated fish fillet from the Brook is as high as 1×10^{-3} .

22. In July of 1986, the U.S. EPA published its FS describing the remedial alternatives for OU1.

23. Considering the recommended alternative for the remedial action and the public comments received, the Regional Administrator for Region 5 of U.S. EPA issued a Record of Decision for OU1 on September 30, 1986, to which the State gave its concurrence. The 1986 ROD called for the excavation, treatment and disposal of approximately 52,000 cubic yards of contaminated sediment.

24. On May 16, 1986, July 10, 1986 and November 8, 1987, U.S. EPA notified forty parties that U.S. EPA determined that each party may be a potentially responsible party ("PRP") regarding the proposed remedial action at the Site.

25. On March 22, 1989, a Unilateral Order was issued to 19 of the PRPs ordering them to design a remedy for the Fields Brook sediments, complete a Remedial Investigation to identify the sources of contamination, and develop and evaluate cleanup alternatives for the sources of contamination. Originally, six of the PRPs agreed to conduct the work. In July 1992, eight additional PRPs joined with the group. In 1994, one additional PRP joined the group. The Respondent was one of the PRPs that received an order.

26. In 1993, some of the potential responsible parties voluntarily conducted an RI/FS for OU4 under U.S. EPA oversight. These studies assessed human and ecological risks and cleanup alternatives and form the basis for cleanup decisions in OU4.

27. A wetland survey, which identified the size and location of wetlands that could be affected by the Fields Brook cleanups, and an extensive wetland sampling effort, were completed in fall 1995. Data from these efforts were included in the October 1996 RI/FS for OU 4.

28. Since 1985, sampling has been done to quantify the levels of contaminants in OU4. Tissue samples were also collected from mice, shrews, earthworms, voles, insects, and vegetation and analyzed for 130 separate chemical parameters. PCBs were found in OU4 biota. A maximum concentration of 11 ppm total PCBs was detected in a single shrew composite sample. However, most concentrations were well below this level ranging from 0.029 to 4.8 ppm. Arsenic, cadmium, chromium, lead, and hexachlorobenzene

were observed in all tissue matrices throughout OU4. Barium, vanadium, and hexachlorobutadiene were observed in several but not all matrices. Various chemicals of concern, including several trace metals (lead, cadmium, chromium, vanadium, and barium), were considered in the ecological risk assessment. PCBs, hexachlorobenzene, and hexachlorobutadiene were the organics that were fully assessed in the ecological risk assessment.

29. The concentrations of hazardous substances varied from background and nondetect levels to several hundred parts per million (ppm or mg/kg).

30. An exposure assessment was conducted as part of the human health and ecological risk assessments for OU 4. The total PCB CUGs are set at 1 ppm in the residential area and 6 to 8 ppm in the industrial OU4 areas on each side of the Brook in each exposure unit, and these CUGs are based on a 3×10^{-6} remedial action objective. These CUGs indicate the average concentration per exposure unit for each contaminant found within OU4 at which exposure by people, plants and animals would be protective.

31. The OU4 human health risk assessment focused on the 11 COC which exceeded the sediment cleanup concentration goals which were determined during the sediment remedial design for OU 1.

32. The total potential carcinogenic risk associated with OU4 is greater than the 1×10^{-6} risk which is considered the departure point for acceptable risk by U.S. EPA. The potential excess cancer risks ranged from 1.6×10^{-3} to 1.2×10^{-4} .

Exposure to PCBs and hexachlorobenzene, both Class B2 carcinogens, contributed the majority of the excess cancer risk. There is a calculable cancer risk to residents, workers, and trespassers due primarily to long-term exposures through ingestion of soils and contaminants in OU4 soils and Brook sediments.

33. The hazard indices (HI) in OU4 are greater than one, indicating that adverse health effects may occur from exposure to the site. The hazard indices range from 25 to 1.6.

34. Risks associated with doses of contaminants to ecological receptors were evaluated by comparing receptors against reference doses to calculate hazard quotients (HQs). As indicated, a number of different receptors of concern including mink, hawk, shrew, mouse, heron, robin and rabbit have HQs which exceed 1 for multiple contaminants of concern.

35. From 1992 to 1995, the PRPs evaluated 94 areas of potential contamination within the Fields Brook watershed to determine whether these areas were a source of past contamination or could cause future recontamination once the Brook cleanup is underway. Contamination could be caused by discharges from pipes, the movement of contaminated soil or sediment during rainstorms, and subsurface releases to the brook from flowing groundwater. The Source Control Remedial Investigation was approved in May 1997.

36. As a result of this evaluation, the PRPs identified five industrial areas as sources or potential sources of

contamination to Fields Brook. The industrial source areas are: Detrex, Millennium Plant II $TiCl_4$ (formerly SCM), ACME, RMI Metals, and Conrail. In addition, several sewer systems located to the north and south of Fields Brook were also found to be potential sources of contamination.

37. This Order addresses the source area located on the Millennium facility.

38. With regard to the Millennium facility, Millennium Plant II, the $TiCl_4$ (titanium tetrachloride) facility is located in the south-central portion of the industrialized area near Fields Brook. The structures currently at the site include several process buildings, a tank farm with numerous aboveground storage tanks contained entirely within a diked area, and three settling ponds. The western half of the property contains most of the process-related structures, whereas the eastern half remains largely undeveloped and is covered by a large pile of mining wastes and filter residue.

39. The $TiCl_4$ plant was designed, constructed and initially operated by the Stauffer Chemical Company. Construction was completed in 1958. The facility was sold to National Distillers and Chemicals in 1959 and was operated for the next five years by National Distillers (and its affiliates Mallory-Sharon Metals and RMI Titanium). Cabot Titania acquired the plant in 1963 and operated it until 1972, when it was leased to Gulf and Western Industries, Inc. Gulf and Western purchased the plant in 1975.

SCM purchased the TiCl₄ facility in 1983. In 1997, SCM changed its name to Millennium.

40. At the commencement of operations, the TiCl₄ plant utilized a heat transfer system that used Aroclor-based fluids. This system remained in use until Gulf and Western had pure Aroclor removed from the heat transfer system in 197³₄ and replaced it with Monsanto PCB-Free Therminol.

41. There have been multiple investigations of contamination at the TiCl₄ facility. A Toxic Substances Control Act (TSCA) action in 1983 led to the excavation and disposal of PCB-contaminated sediment from rainwater trenches (which had levels of up to 660 ppm) and overflow channels (330 ppm).

42. In 1990, Millennium identified PCB contamination with levels up to 41,000 ppm. This was reported to the Region 5 TSCA office. TSCA required the preparation of a work plan and an investigation to determine the extent of soil contamination, and identify buried drums. This work was postponed in 1991, to allow coordination with the Fields Brook Source Control Remedial Investigation.

43. As part of the SCRI, the Recontamination Assessment of Millennium identified the Mining Residuals Pile, the Non-Traffic Area and the North Traffic Area as areas that possess the potential to recontaminate Fields Brook. Remedial action is also being planned for other plant areas that have PCB concentrations greater than the Fields Brook cleanup goal. These additional

areas include: the Laydown Area; the Plant Process Area; and the Existing Soil Piles.

44. Site investigations have identified PCBs in surface soils (approximately the upper 6 ft) in the west-central portion of the facility, extending north beyond the existing security fence-line. The area extending north beyond the fence-line to the 100-year floodplain is the Non-Traffic Area. PCB concentrations in surface soils in the Non-Traffic Area range from 3.1 ppm to 50 ppm. However, a few sampling locations near the old outfall were found to have concentrations of PCBs greater than 50 ppm, and some borings had soils containing greater than 500 ppm.

45. Site investigations identified PCBs in surface soils (approximately the upper 6 ft) in the west-central portion of the facility, extending north beyond the existing security fence-line. The area south of the fence-line and north of the Plant Process Area is defined as the North Traffic Area. The surface area in the North Traffic Area is covered with pavement, structures, or gravel.

46. PCB concentrations in surface soils in the North Traffic Area have generally been identified in the range of 3.1 ppm to 50 ppm. However, a few sampling locations near an old outfall had concentrations of PCBs greater than 50 ppm and a small area with PCBs greater than 500 ppm.

47. The Laydown Area is located immediately south of the concrete pad. The Laydown Area consists of bare soils and

vegetated soils. The average PCB concentration in the Laydown Area is 3.5 ppm, and the maximum concentration is 37.9 ppm (at 1.5 to 3.0 ft depth).

48. The Plant Process Area is the active, operating portion of the $TiCl_4$ facility. The Plant Process Area is almost completely covered with either pavement or structures. PCB concentrations in surface soils in the Plant Process Area have generally been identified in the range of 3.1 ppm to 50 ppm. However, a few scattered sampling locations have identified PCB concentrations greater than 50 ppm and a small area with PCB concentrations greater than 500 ppm. The primary area with elevated PCB concentrations is associated with the old Therminol system.

49. The Existing Soil Piles are located on the concrete storage pad in the east central portion of the $TiCl_4$ facility. Standard plant maintenance and upgrades occasionally require the excavation of small amounts of soil. These soils are stockpiled on the concrete pad. Historic sampling results from the excavation locations indicate that some of these soils may contain concentrations greater than 50 ppm PCBs.

50. The inactive Mining Residuals Pile is located in the eastern portion of the facility between Middle Road and Fields Brook. The pile received "Bevill" exempt mining residuals (e.g., iron hydroxide) from previous plant operations prior to Millennium's operations. As stated in the Bevill exemption, the

mining residuals are neither hazardous wastes nor hazardous substances.

51. Information gathered during the Mining Residuals Pile investigation indicates that the material is primarily iron hydroxide, with a low moisture content (measured at about 25 to 30 percent, as compared to an approximate field capacity of 50 to 60 percent), and a (disturbed) density ranging between 1.0 and 1.25 tons per cu yd. Although the mining residuals are not hazardous wastes, sample results revealed that PCBs are present in the Mining Residuals Pile at concentrations ranging from non-detect to 760 ppm.

52. ~~These~~ ^{specific areas outside the FSCA} areas have or present the potential to recontaminate the Brook with hazardous substances at levels that could present a threat to human health or the environment.

53. Further, no remedial activity can proceed in OU 1 or OU 4 until the upstream source areas, such as the Millennium facility, are remediated to prevent recontamination of remediated areas in OU 1 and OU 4.

54. In conjunction with the preparation of the Source Control Remedial Investigation report, the PRPs prepared a Source Control Feasibility Study to identify and evaluate cleanup alternatives. The Source Control Feasibility Study was finalized in June 1997. The report describes the initial screening of alternatives, the identification of a range of remedial alternatives, and the detailed analysis of the assembled

alternatives for each of the five properties and the sewer systems.

55. Pursuant to § 117 of CERCLA, 42 U.S.C. § 9617, U.S. EPA published notice of the completion of the FS and of the proposed plan for remedial action for OU2 in July 1997, and provided opportunity for public comment on the proposed remedial action. Similarly, Respondent was given an opportunity to comment on the proposed plan for remedial action for the Millennium facility and to supplement the Administrative Record regarding a decision for selection of the final plan for remedial action.

56. After review of the comments received, the Director of the Superfund Division for Region 5 signed a Record of Decision for OU2 on September 29, 1997. The 1997 ROD called for remedial action at six source areas. With regard to the Millennium facility, the 1997 ROD called for the excavation of soil with PCB concentrations greater than or equal to 50 ppm. The excavated soils will be disposed at either an on-site or off-site TSCA landfill. Following completion of excavation activities, the excavated areas will be backfilled with clean soil and graded to allow for adequate drainage. The remaining surface soils included in the remedial response area will be contained on-site with a 12-inch soil cover and an erosion control blanket and will be vegetated to reduce erosion. For traffic and work areas, a geotextile and 6 inches of gravel will be used.

57. The Respondent is now the owner or operator of the Millennium facility, including the source areas.

58. The Fields Brook Site is a "facility" as defined in § 101(9) of CERCLA, 42 U.S.C. § 9601(9).

59. The Millennium facility and source areas are a "facility" as defined in § 101(9) of CERCLA, 42 U.S.C. § 9601(9).

60. The Respondent is a "person" as defined in § 101(21) of CERCLA, 42 U.S.C. § 9601(21).

61. The Respondent is a liable party as defined in § 107(a) of CERCLA, 42 U.S.C. § 9607(a), and is subject to this Order under § 106(a) of CERCLA, 42 U.S.C. § 9606(a).

62. "Hazardous substances", as defined in § 101(14) of CERCLA, 42 U.S.C. § 9601(14), are present at the Site and source area.

63. These hazardous substances have been, are being and threaten to be "released" from the source area as that term is defined in § 101(22) of CERCLA, 42 U.S.C. § 9601(22).

64. The past disposal and migration of hazardous substances from the source area constitutes a "release", and the potential for future migration of hazardous substances from the source area poses a threat of a "release" as defined in § 101(22) of CERCLA, 42 U.S.C. § 9601(22).

65. The release and threat of release of one or more hazardous substances from the source area is or may be presenting

an imminent and substantial endangerment to the public health or welfare or the environment.

66. The actions required by this Order are necessary to protect the public health, welfare, or the environment and are consistent with the National Contingency Plan, as amended, and CERCLA.

V. NOTICE TO THE STATE

67. U.S. EPA has notified the State of Ohio that U.S. EPA intends to issue this Order. U.S. EPA will consult with the State and the State will have the opportunity to review and comment to U.S. EPA regarding all work to be performed, including remedial design, reports, technical data and other deliverables, and any other issues which arise while the Order remains in effect.

VI. ORDER

68. Based on the foregoing, the Respondent is hereby ordered to comply with all of the provisions of this Order, including but not limited to all attachments to this Order, all documents incorporated by reference into this Order, and all schedules and deadlines contained in this Order, attached to this Order, or incorporated by reference into this Order.

VII. WORK TO BE PERFORMED

69. Within five ¹⁵(5) days after the effective date of this Order, the Respondent shall record Notice of and/or a copy of this Order in the appropriate governmental office where land ownership and transfer records are filed or recorded, and shall ensure that the recording of said notice and/or Order is indexed to the title of each and ^{the Millenium facility} every parcel of property owned by said Respondent at the Site, so as to provide notice to third parties of the issuance and terms of this Order with respect to those properties. The Respondent shall, within ¹⁵15 days after the effective date of this Order, send notice of such recording and indexing to U.S. EPA.

70. All workplans, reports, engineering design documents, and other deliverables (workplans and deliverables), as described throughout this Order, shall be submitted to U.S. EPA and OEPA (except documents claimed to contain confidential business information). All workplans and deliverables will be reviewed and either approved, approved with modifications, or disapproved by U.S. EPA. In the event of approval or approval with modifications by U.S. EPA, the Respondent shall proceed to take any action required by the workplan, report, or other item, as approved or modified by U.S. EPA. If the workplan or other deliverable is approved with modifications or disapproved, U.S. EPA will provide, in writing, comments or modifications required

for approval. The Respondent shall amend the workplan or other deliverable to incorporate only those comments or modifications required by U.S. EPA. Within the time frame specified in the SOW, the Respondent shall submit an amended workplan or other deliverable. If the SOW does not specify a time frame, Respondent shall submit the deliverable within thirty (30) days of receipt of U.S. EPA's comments or directions. U.S. EPA may, in its discretion, extend the period for resubmittal of any deliverable. U.S. EPA shall review the amended workplan or deliverable and either approve or disapprove it. Failure to submit a workplan, amended workplan or other amended deliverable shall constitute noncompliance with this Order. Submission of an amended workplan or other deliverable which fails to incorporate all of U.S. EPA's required modifications, or which includes other unrequested modifications, shall also constitute noncompliance with this Order. Approval by U.S. EPA of the (amended) workplan or other deliverable shall cause said approved (amended) workplan or other deliverable to be incorporated herein as an enforceable part of this Order. If any (amended) workplan or other deliverable is not approved by U.S. EPA, the Respondent shall be deemed to be in violation of this Order.

EPA's discretion

71. In the event of an inconsistency between this Order and any subsequent approved (amended) workplan or other deliverable, the terms of this Order shall control. In the event of an

inconsistency between this Order and the attached SOW regarding the schedule of work and deliverables, the terms of the SOW shall control.

A. Remedial Design for 1997 ROD

72. Within ninety (90) days after the effective date of this Order, Respondent shall submit an intermediate remedial design and associated submittals ("60% Design") for the Site to U.S. EPA for review and approval. The major tasks of the Remedial Design shall, as necessary or as set forth in the SOW, include the following: (1) an intermediate design (optional); (2) a pre-final design; and (3) a final design. At each of these design completion stages, the design packages shall all include the following: (1) a design schedule, including a schedule for submission and approval of all required permit applications; (2) plans and specifications; (3) an Operation and Maintenance Plan; (4) a Construction Field Sampling Plan; 5) a Construction Quality Assurance Plan (CQAP); and (6) a Contingency Plan. The CQAP shall describe the approach to quality assurance during construction activities at the Site and shall specify a quality assurance official, independent of the construction contractor, to conduct a quality assurance program during the construction phase of the project.

73. Upon approval of the (Amended) RD Workplan by U.S. EPA, the Respondent shall implement the (Amended) RD Workplan and submit all design deliverables according to the schedule in the approved (Amended) RD Workplan. Any noncompliance with the

approved (Amended) RD Workplan shall be a violation of this Order.

B. Remedial Action for 1997 ROD

74. Within seventy-five (75) days after receipt of U.S. EPA's approval of the Final Design/Notice of Authorization to Proceed with RA, the Respondent shall submit a Remedial Action Workplan (RA Workplan) for review and approval. The RA Workplan shall be developed in accordance with the 1997 ROD and the SOW, and shall be consistent with the final design as approved by U.S. EPA. The RA Workplan shall, as necessary or as set forth in the SOW, include methodologies, plans and schedules for completion of the following: (1) selection of the remedial action contractor; (2) implementation of a Construction Quality Assurance Plan; (3) identification of and satisfactory compliance with applicable permitting requirements; (4) development and submission of a Performance Standards Assessment Plan; (5) implementation of the Operation and Maintenance Plan; and (6) implementation of the Contingency Plan. The RA Workplan shall include a schedule for implementing all remedial action tasks identified in the SOW and shall identify the initial formulation of Respondent's remedial action project team, including the supervising contractor. The Respondent shall also submit to U.S. EPA a Health and Safety Plan for field activities required by the RA Workplan. The Health and Safety Plan for field activities shall conform to applicable Occupational Safety and Health Administration and U.S. EPA

requirements, including but not limited to the regulations at 54 Fed. Reg. 9294.

75. Upon approval of the (Amended) RA Workplan by U.S. EPA, the Respondent shall implement the (Amended) RA Workplan in accordance with any and all instructions from the U.S. EPA Remedial Project Manager ("RPM") and in accordance with the schedules in the (Amended) RA Workplan. Unless otherwise directed by U.S. EPA, the Respondent shall not commence remedial action at the Site prior to approval of the (Amended) RA Workplan. Any noncompliance with the approved (Amended) RA Workplan shall be a violation of this Order.

76. The work performed by the Respondent pursuant to this Order shall, at a minimum, achieve the performance standards specified in the 1997 ROD and SOW. Nothing in this Order, or in U.S. EPA's approval of any (amended) workplan or other deliverable, shall be deemed to constitute a warranty or representation of any kind by U.S. EPA that full performance of the remedial design or remedial action will achieve the performance standards set forth in the 1997 ROD and in the SOW. The Respondent's compliance with such approved documents does not foreclose U.S. EPA from seeking additional work.

77. All materials removed from the Site shall be disposed of or treated pursuant to the 1997 ROD, the SOW, U.S. EPA approved remedial design or remedial action documents, or at a facility approved in advance of removal by U.S. EPA's RPM and in

accordance with: 1) § 121(d)(3) of CERCLA, 42 U.S.C. § 9621(d)(3); 2) the Resource Conservation and Recovery Act of 1976 (RCRA), 42 U.S.C. § 6901, et seq., as amended; 3) the U.S. EPA "Revised Off-Site policy," OSWER Directive 9834.11, November 13, 1987; and 4) all other applicable federal, State, and local requirements. The identity of the receiving facility and state will be determined by the Respondent following the award of the contract for remedial action construction. The Respondent shall provide written notice to the RPM which shall include all relevant information, including the information required by paragraph 78 below, as soon as practicable after the award of the contract and before the hazardous substances are actually shipped off-Site.

78. Prior to any off-site shipment of hazardous substances from the Site to an out-of-state waste management facility, the Respondent shall provide written notification to the appropriate state environmental official in the receiving state and to the RPM of such shipment of hazardous substances. However, the notification of shipments to the state shall not apply to any off-Site shipments when the total volume of all shipments from the Site to the state will not exceed ten (10) cubic yards. The notification shall be in writing, and shall include the following information, where available: (1) the name and location of the facility to which the hazardous substances are to be shipped; (2) the type and quantity of the hazardous substances to be shipped;

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(3) the expected schedule for the shipment of the hazardous substances; and (4) the method of transportation. The Respondent shall notify the receiving state of major changes in the shipment plan, such as a decision to ship the hazardous substances to another facility within the same state, or to a facility in another state.

79. The Respondent shall cooperate with U.S. EPA in providing information regarding the work to the public. When requested by U.S. EPA, the Respondent shall participate in the preparation of such information for distribution to the public and in public meetings which may be held or sponsored by U.S. EPA to explain activities at or relating to the Site.

80. Within thirty (30) days after the Respondent concludes that the remedial action has been fully performed, the Respondent shall so notify U.S. EPA and shall schedule and conduct a pre-certification inspection to be attended by the Respondent and U.S. EPA. The pre-certification inspection shall be followed by a written report submitted within thirty (30) days of the inspection by a registered professional engineer and the Respondent's Project Coordinator certifying that the remedial action has been completed in full satisfaction of the requirements of this Order. If, after completion of the pre-certification inspection and receipt and review of the written report, U.S. EPA determines that the remedial action or any portion thereof has not been completed in accordance with this

Order, U.S. EPA shall notify the Respondent in writing of the activities that must be undertaken to complete the remedial action and shall set forth in the notice a schedule for performance of such activities. The Respondent shall perform all activities described in the notice in accordance with the specifications and schedules established therein. If U.S. EPA concludes, following the initial or any subsequent certification of completion by the Respondent that the remedial action has been fully performed in accordance with this Order, U.S. EPA may notify the Respondent that the remedial action has been fully performed. U.S. EPA's notification shall be based on present knowledge and the Respondent's certification to U.S. EPA, and shall not limit U.S. EPA's right to perform periodic reviews pursuant to § 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of U.S. EPA is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607.

C. Schedule

81. The implementation of the remedial action for the work required by the 1997 ROD and ~~SOW~~ ("work") shall proceed pursuant to the schedule set forth in the ~~SOW~~ and any U.S. EPA approved documents regarding the remedial design or remedial action for the 1997 ROD. The progression of the remedial action for the 1997 ROD may be coordinated with any action required for Operable Units 1 and 4. Work under this Order will be conducted before or

contemporaneous with the remediation of downstream or contiguous sediment and floodplain/wetland areas of the Brook. A contiguous sediment and/or floodplain/wetland area of the Brook can be remediated at the same time as the Millennium source area.

VIII. PERIODIC REVIEW

82. Under § 121(c) of CERCLA, 42 U.S.C. § 9621(c), and any applicable regulations, where hazardous substances will remain on Site at the completion of the remedial action, U.S. EPA may review the Site to assure that the work performed pursuant to this Order adequately protects human health and the environment. Until such time as U.S. EPA certifies completion of the work, the Respondent shall conduct the requisite studies, investigations, or other response actions as set forth in the 1997 ROD or SOW in order to permit U.S. EPA to conduct the review under § 121(c) of CERCLA. As a result of any review performed under this paragraph, the Respondent may be required to perform additional work or to modify work previously performed.

IX. ADDITIONAL RESPONSE ACTIONS

83. In the event that U.S. EPA determines that additional work or modifications to work are necessary to meet performance standards, to maintain consistency with the final remedy, or to otherwise protect human health or the environment, U.S. EPA will

notify the Respondent that additional response actions are necessary.

84. Within thirty (30) days of receipt of notice from U.S. EPA that additional response activities are necessary, the Respondent shall submit for approval an Additional RD/RA Workplan pursuant to paragraph 70 herein. The Additional RD/RA Workplan shall conform to this Order's requirements for RD and RA Workplans. Upon U.S. EPA's approval of the (Amended) Additional RD/RA Workplan, the (Amended) Additional RD/RA Workplan shall become an enforceable part of this Order, and the Respondent shall implement the (Amended) Additional RD/RA Workplan for additional response activities in accordance with the standards, specifications, and schedule contained therein. Failure to submit an Additional RD/RA Workplan shall constitute noncompliance with this Order.

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X. ENDANGERMENT AND EMERGENCY RESPONSE

85. In the event of any event during the performance of the work which causes or threatens to cause a release of a hazardous substance or which may present an immediate threat to public health or welfare or the environment, the Respondent shall immediately take all appropriate action to prevent, abate, or minimize the threat, and shall immediately notify U.S. EPA's RPM or alternate RPM. If neither of these persons is available

Respondent shall notify the U.S. EPA Emergency Response Unit, Region 5. The Respondent shall take further action in consultation with U.S. EPA's RPM and in accordance with all applicable provisions of this Order, including but not limited to the health and safety plan and the contingency plan. In the event that the Respondent fails to take appropriate response action as required by this paragraph, and U.S. EPA takes that action instead, the Respondent shall reimburse U.S. EPA for all costs of the response action not inconsistent with the NCP. The Respondent shall pay these costs in the manner described in section XIX (reimbursement of costs) of this Order, within thirty (30) days of U.S. EPA's demand for payment.

86. Nothing in the preceding paragraph shall be deemed to limit any authority of the United States to take, direct, or order all appropriate action to protect human health and the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances on, at, or from the Site.

XI. PROGRESS REPORTS

87. In addition to the other deliverables set forth in this Order, the Respondent shall provide monthly progress reports to U.S. EPA and OEPA with respect to actions and activities undertaken pursuant to this Order. The progress reports shall be

submitted on or before the 10th day of each month following the effective date of this Order. The Respondent's obligation to submit progress reports continues until U.S. EPA gives the Respondent written notice under paragraph 80 of this Order. At a minimum these progress reports shall: (1) describe the actions which have been taken to comply with this Order during the prior month; (2) include all results of sampling and tests and all other data received by the Respondent and not previously submitted to U.S. EPA; (3) describe all work planned for the next 90-days with schedules relating such work to the overall project schedule for RD/RA completion; and (4) describe all problems encountered and any anticipated problems, any actual or anticipated delays, and solutions developed and implemented to address any actual or anticipated problems or delays.

XII. QUALITY ASSURANCE, SAMPLING AND DATA ANALYSIS

88. The Respondent shall use the quality assurance, quality control, and chain of custody procedures used in conducting the RI/FS for OU2.

89. The Respondent shall notify U.S. EPA and OEPA not less than fourteen (14) days in advance of any sample collection activity. At the request of U.S. EPA, the Respondent shall allow U.S. EPA or its authorized representatives to take split or duplicate samples of any samples collected by the Respondent with

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regard to the Site or pursuant to the implementation of this Order. In addition, U.S. EPA shall have the right to take any additional samples that U.S. EPA deems necessary.

XIII. COMPLIANCE WITH APPLICABLE LAWS

90. All activities by the Respondent pursuant to this Order shall be performed in accordance with the requirements of all federal and State laws and regulations. U.S. EPA has determined that the activities contemplated by this Order are consistent with the NCP.

91. Except as provided in § 121(e) of CERCLA and the NCP, no permit shall be required for any portion of the work conducted ~~entirely~~ on-Site. Where any portion of the work requires a federal or State permit, the Respondent shall submit timely applications and take all other actions necessary to obtain and to comply with all such permits or approvals.

92. This Order is not and shall not be construed to be, a permit issued pursuant to any federal or State statute or regulation.

XIV. REMEDIAL PROJECT MANAGER

93. All communications, whether written or oral, from the Respondent to U.S. EPA shall be directed to U.S. EPA's Remedial Project Manager ("RPM"). The Respondent shall submit to U.S. EPA

six (6) copies of all documents, including plans, reports, and other correspondence, which are developed pursuant to this Order, and shall send these documents by certified mail, return receipt requested. ~~U.S. EPA's RPM is:~~

Terese Van Donsel
United States Environmental Protection Agency
SR-6J
77 West Jackson Boulevard
Chicago, Illinois 60604
(312) 353-6564

add Larry

OEPA's Project Manager is:

Regan S. Williams,
Ohio EPA
Northeast District Office
2110 E. Aurora Avenue
Twinsburg, OH 44087

94. U.S. EPA may change its RPM. If U.S. EPA changes its RPM, U.S. EPA will inform the Respondent in writing of the name, address, and telephone number of the new RPM.

95. U.S. EPA's RPM shall have the authority lawfully vested in a RPM and On-Scene Coordinator (OSC) by the NCP. U.S. EPA's RPM shall have authority, consistent with the NCP, to halt any work required by this Order, and to take any necessary response action.

XV. PROJECT COORDINATOR AND CONTRACTORS

96. All aspects of the Work to be performed by the Respondent pursuant to this Order shall be under the direction and supervision of a Project Coordinator qualified to undertake and complete the requirements of this Order. The Project Coordinator shall be the RPM's primary point of contact with the Respondent and shall possess sufficient technical expertise regarding all aspects of the work. Within fifteen (15) days after the effective date of this Order, the Respondent shall notify U.S. EPA in writing of the name and qualifications of the Project Coordinator, including primary support entities and staff, proposed to be used in carrying out work under this Order. U.S. EPA reserves the right to disapprove the proposed Project Coordinator.

97. Within sixty (60) days after U.S. EPA approves the RA Workplan, the Respondent shall identify a proposed construction contractor and notify U.S. EPA in writing of the name, title, and qualifications of the construction contractor proposed to be used in carrying out work under this Order.

98. At least seven (7) days prior to commencing any work at the Site pursuant to this Order, the Respondent shall submit to U.S. EPA a certification that the Respondent or its contractors and subcontractors have adequate insurance coverage or have indemnification for liabilities for injuries or damages to

persons or property which may result from the activities to be conducted by or on behalf of the Respondent pursuant to this Order. The Respondent shall ensure that such insurance or indemnification is maintained for the duration of the work required by this Order.

99. U.S. EPA retains the right to disapprove of the Project Coordinator and any contractor, including but not limited to remedial design contractors and construction contractors retained by the Respondent. In the event U.S. EPA disapproves a Project Coordinator or contractor, the Respondent shall retain a new project coordinator or contractor to perform the work, and such selection shall be made within fifteen (15) days following the date of U.S. EPA's disapproval. If at any time the Respondent proposes to use a new project coordinator or contractor, the Respondent shall notify U.S. EPA of the identity of the new project coordinator or contractor at least fifteen (15) days before the new project coordinator or contractor performs any work under this Order.

XVI. SITE ACCESS AND DOCUMENT AVAILABILITY

100. In the event that the Site, the off-Site area that is to be used for access, the property where documents required to be prepared or maintained by this Order are located, or other property subject to or affected by this response action, is owned

in whole or in part by parties other than those bound by this Order, the Respondent will obtain, or use its best efforts to obtain, site access agreements from the present owner(s), within one hundred and twenty (120) days of the effective date of this Order. Said agreements shall provide access for U.S. EPA, its contractors and oversight officials, the State and its contractors, and the Respondent or the Respondent's authorized representatives and contractors. Said agreements shall specify that the Respondent is not U.S. EPA's representative with respect to liability associated with Site activities. Copies of such agreements shall be provided to U.S. EPA prior to the Respondent's initiation of field activities. The Respondent's best efforts shall include providing reasonable compensation to any off-Site property owner. If access agreements are not obtained within the time referenced above, the Respondent shall immediately notify U.S. EPA of its failure to obtain access.

101. If the Respondent cannot obtain the necessary access agreements, U.S. EPA may use its legal authorities to obtain access for the Respondent. The Respondent shall reimburse U.S. EPA, pursuant to Section XIX (reimbursement of costs) of this Order, for all costs (including attorney fees) incurred by the United States to obtain access for the Respondent.

102. The Respondent shall allow U.S. EPA and its authorized representatives and contractors to enter and freely move about all property at the Site and off-Site areas subject to or

affected by the work under this Order for the purposes of inspecting conditions, activities, the results of activities, records, operating logs, and contracts related to the Site or the Respondent and its representatives or contractors pursuant to this Order; reviewing the progress of the Respondent in carrying out the terms of this Order; conducting tests as U.S. EPA or its authorized representatives or contractors deem necessary; using a camera, sound recording device or other documentary type equipment; and verifying the data submitted to U.S. EPA by Respondent. The Respondent shall allow U.S. EPA and its authorized representatives to enter the Site, to inspect and copy all records, files, photographs, documents, sampling and monitoring data, and other writings related to work undertaken in carrying out this Order. Nothing herein shall limit U.S. EPA's right of entry or inspection authority under federal law, and U.S. EPA retains all of its information gathering and enforcement authorities and rights under CERCLA, RCRA, and any other applicable statutes and regulations.

XVII. RECORD PRESERVATION

103. The Respondent shall provide to U.S. EPA upon request, copies of all documents and information within its or its contractors, subcontractors or agents possession or control relating to activities at the Site or to the implementation of

this Order, including but not limited to sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, traffic routing, correspondence, or other documents or information. The Respondent shall also make available to U.S. EPA, its employees, agents, or representatives for purposes of investigation, information gathering or testimony concerning the performance of the work.

104. Until ten (10) years after U.S. EPA provides notice pursuant to paragraph 80 of this Order, the Respondent shall preserve, and shall instruct its contractors and agents to preserve, all documents, records, and information of whatever kind, nature or description relating to the performance of the work. Upon the conclusion of this document retention period, the Respondent shall notify the U.S. EPA at least ninety (90) days prior to the destruction of any such records, documents or information, and, upon request of the U.S. EPA, the Respondent shall deliver all such documents, records and information to U.S. EPA.

105. The Respondent may assert a claim of business confidentiality covering part or all of the information submitted to U.S. EPA pursuant to the terms of this Order under 40 C.F.R. § 2.203, provided such claim is not inconsistent with § 104(e) (7) of CERCLA, 42 U.S.C. § 9604(e) (7) or other provisions of law. This claim shall be asserted in the manner described by 40 C.F.R. § 2.203(b) and substantiated by the Respondent at the time the

claim is made. Information determined to be confidential by U.S. EPA will be given the protection specified in 40 C.F.R. Part 2. If no such claim accompanies the information when it is submitted to U.S. EPA, it may be made available to the public by U.S. EPA or the State without further notice to the Respondent. The Respondent shall not assert confidentiality claims with respect to any data or documents related to Site conditions, sampling, or monitoring.

106. The Respondent shall maintain, for the period during which this Order is in effect, an index of documents that the Respondent claims contain confidential business information ("CBI"). The index shall contain, for each document, the date, author, addressee, and subject of the document. The Respondent shall submit an updated copy of the index to U.S. EPA with each new document(s) claimed to be CBI. The updated index shall also indicate any documents for which CBI claims have been withdrawn.

XVIII. DELAY IN PERFORMANCE

107. Any delay in performance of this Order according to its terms and schedules that is not properly justified by the Respondent under the terms of this section or otherwise permitted by U.S. EPA shall be considered a violation of this Order. Any delay in performance of this Order shall not affect the

Respondent's obligations to fully perform all obligations under the terms and conditions of this Order.

108. The Respondent shall notify U.S. EPA of any delay or anticipated delay in performing any requirement of this Order. Such notification shall be made by telephone to U.S. EPA's RPM within forty eight (48) hours after Respondent first knew or should have known that a delay might occur. The Respondent shall adopt all reasonable measures to avoid or minimize any such delay. Within seven (7) days after notifying U.S. EPA by telephone, the Respondent shall provide written notification fully describing the nature of the delay, any justification for delay, any reason why the Respondent should not be held strictly accountable for failing to comply with any relevant requirements of this Order, the measures planned and taken to minimize the delay, and a schedule for implementing the measures that will be taken to mitigate the effect of the delay. Increased costs or expenses associated with implementation of the activities called for in this Order is not a justification for any delay in performance.

XIX. REIMBURSEMENT OF COSTS

109. The Respondent shall reimburse U.S. EPA, upon written demand, for all response costs incurred by the United States in overseeing the Respondent's implementation of the requirements of this Order, including, but not limited to all response costs

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incurred by the United States in taking emergency response action pursuant to Section X and/or obtaining access pursuant to Section XVI of this Order. U.S. EPA may submit to the Respondent on a periodic basis an accounting of all oversight response costs incurred by the U.S. EPA with respect to this Order. U.S. EPA's Itemized Cost Summary Reports, or such other summary as may be certified by U.S. EPA, shall serve as the accounting and basis for payment demands.

110. The Respondent shall, within thirty (30) days of receipt of each U.S. EPA accounting, remit a certified or cashier's check for the amount of those costs. Interest shall accrue from the later of the date that payment of a specified amount is demanded in writing or the date of the expenditure. The interest rate is the rate established by the Department of the Treasury pursuant to 31 U.S.C. § 3717 and 4 C.F.R. § 102.13.

111. Checks shall be made payable to the "U.S. EPA Hazardous Substances Superfund" and shall include the name of the Site, the Site identification number, the account number and the title of this Order. Checks shall be forwarded to:

U.S. Environmental Protection Agency
Superfund Accounting
P.O. Box 70753
Chicago, Illinois 60673

Respondent shall send copies of each transmittal letter and check to the U.S. EPA's RPM.

112. Section XIX of this Order will not apply to the payment of oversight costs of U.S. EPA if recovery of such costs is covered by any other Consent Decree or Order regarding the remedial action for the 1997 ROD.

XX. UNITED STATES NOT LIABLE

113. The United States and U.S. EPA are not to be construed as parties to, and do not assume any liability for, any contract entered into by the Respondent to carry out the activities pursuant to this Order. The proper completion of the work under this Order is solely the responsibility of the Respondent. The United States and U.S. EPA, by issuance of this Order, also assume no liability for any injuries or damages to persons or property resulting from acts or omissions by the Respondent, or its directors, officers, employees, agents, representatives, successors, assigns, contractors, or consultants in carrying out any action or activity required by this Order.

XXI. ENFORCEMENT AND RESERVATIONS

114. U.S. EPA reserves the right to bring an action against the Respondent under § 107 of CERCLA, 42 U.S.C. § 9607, for recovery of any response costs incurred by the United States related to this Order and not reimbursed by the Respondent or any other response costs incurred by EPA.

115. Notwithstanding any other provision of this Order, at any time during the response action, U.S. EPA may perform its own studies, complete the response action (or any portion of the response action) as provided in CERCLA and the NCP, and seek reimbursement from the Respondent for its costs, or seek any other appropriate relief.

116. Nothing in this Order shall preclude U.S. EPA from taking any additional enforcement actions, including modification of this Order or issuance of additional Orders, and/or additional remedial or removal actions as U.S. EPA may deem necessary, or from requiring the Respondent in the future to perform additional activities pursuant to CERCLA, 42 U.S.C. § 9606(a), et seq., or any other applicable law. This Order shall not affect the Respondent's liability under CERCLA § 107(a), 42 U.S.C. § 9607(a), for the costs of any such additional actions.

117. Notwithstanding any provision of this Order, the United States hereby retains all of its information gathering, inspection and enforcement authorities and rights under CERCLA, RCRA and any other applicable statutes or regulations.

118. Nothing in this Order shall constitute or be construed as a release from any claim, cause of action or demand in law or equity against any person for any liability it may have arising out of or relating in any way to the Site.

119. If a court issues an order that invalidates any provision of this Order or finds that the Respondent has

sufficient cause not to comply with one or more provisions of this Order, the Respondent shall remain bound to comply with all provisions of this Order not invalidated by the court's order.

XXII. ACCESS TO ADMINISTRATIVE RECORD

120. The Section 106 Administrative Record is available for review on normal business days between the hours of 9:00 a.m. and 5:00 p.m. at the U.S. EPA, Region V, 77 West Jackson Boulevard Chicago, Illinois. An Index of the Administrative Record is attached hereto as Attachment 2.

XXIII. EFFECTIVE DATE AND TERMINATION

121. This Order shall become effective on February 9, 1998.

122. Within thirty (30) days after the Respondent concludes that all phases of the work have been fully performed, that the performance standards have been attained, and that all operation and maintenance activities have been completed, the Respondent shall submit to U.S. EPA a written report by a registered professional engineer certifying that the work has been completed in full satisfaction of the requirements of this Order. U.S. EPA shall require such additional activities as may be necessary to complete the work or U.S. EPA may, based upon present knowledge and the Respondent's certification to U.S. EPA, issue written notification to Respondent that the work has been completed, as

appropriate, in accordance with the procedures set forth in paragraph 80 for the Respondent's certification of completion of the remedial action. U.S. EPA's notification shall not limit U.S. EPA's right to perform periodic reviews pursuant to § 121(c) of CERCLA, 42 U.S.C. § 9621(c), or to take or require any action that in the judgment of U.S. EPA is appropriate at the Site, in accordance with 42 U.S.C. §§ 9604, 9606, or 9607. The provisions of this Order shall be deemed to be satisfied when U.S. EPA notifies the Respondent in writing that the Respondent has demonstrated, to U.S. EPA's satisfaction, that all terms of the Order have been completed. This notice shall not, however, terminate the Respondent's obligation to comply with section XVII of this Order (record preservation).

XXIV. NOTICE OF INTENT TO COMPLY

123. On or before the effective date of this Order, the Respondent must submit to U.S. EPA a written notice stating its unequivocal intention to comply with all terms of this Order. In the event the Respondent fails to provide said written notice of its unequivocal intention to comply with this Order on or before the effective date, the Respondent shall be deemed to have refused to comply with this Order. In the event the Respondent subsequently changes its decision and desires to acquire authority from U.S. EPA under §§ 104(a) and 122(e)(6) of CERCLA

to undertake the work described in this Order, the Respondent must provide the notice described in this paragraph 123 to U.S. EPA and receive from U.S. EPA written permission and authority to proceed with work under this Order.

XXV. PENALTIES

124. The Respondent shall be subject to civil penalties under § 106(b) of CERCLA, 42 U.S.C. § 9606(b), of not more than \$25,000 for each day in which the Respondent violates, or fails or refuses to comply with this Order without sufficient cause. In addition, failure to properly provide response action under this Order, or any portion hereof, may result in liability under § 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3), for punitive damages in an amount at least equal to, and not more than three times the amount of any costs incurred by the Fund as a result of such failure to take proper action.

XXVI. OPPORTUNITY TO COMMENT AND CONFER

125. On or before the effective date of this Order, the Respondent may submit written comments to U.S. EPA. If the Respondent is asserting a "sufficient cause" defense under § 106(b) of CERCLA, it shall describe the nature of any "sufficient cause" defense using facts that exist on or prior to the effective date of this Order. The absence of a response by

U.S. EPA shall not be deemed to be acceptance of the Respondent's assertions.

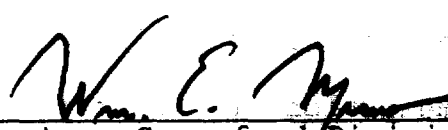
126. Within twenty (20) days after the date of issuance of this Order, the Respondent may request a conference with the U.S. EPA to discuss this Order. If requested, the conference shall occur prior to the effective date of this Order, at the office of U.S. EPA, Region 5, in Chicago, Illinois.

127. The purpose and scope of the conference shall be limited to issues involving the implementation of the response actions required by this Order and the extent to which Respondent intends to comply with this Order. This conference is not an evidentiary hearing and does not constitute a proceeding to challenge this Order. It does not give the Respondent a right to seek review of this Order or to seek resolution of potential liability. No record of the conference (e.g. stenographic, tape or other physical record) will be made. At any conference held pursuant to the Respondent's request, the Respondent may appear in person or by an attorney or other representative. Requests for a conference must be by telephone followed by written confirmation to U.S. EPA's RPM.

ADMINISTRATIVE ORDER FOR FIELDS BROOK SITE

So Ordered, this 24 day of Dec., 1997.

BY:



Director, Superfund Division
U.S. Environmental Protection Agency, Region V

